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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Attorney Docket No. **020431.0980**

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| In re Application of: | § | |
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| **JOHN FORS** | § | Examiner: **AKIBA K. ROBINSON-BOYCE** |
| | § | |
| Serial No. **09/684,075** | § | |
| | § | |
| Filed: **8 OCTOBER 2000** | § | Art Unit: **3639** |
| | § | |
| For: **SYSTEM FOR PLANNING A NEW PRODUCT PORTFOLIO** | § | Confirmation No.: **2874** |

## APPEAL BRIEF

**MAIL STOP: APPEAL BRIEF - PATENT**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the Final Rejection dated 25 January 2005 and the Advisory Action dated 21 April 2005, rejecting claims 2, 3, 5-22, and 24-40 in the present Application. A Notice of Appeal was filed on 23 May 2005, resulting in an Appeal Brief due date of 25 July 2005, as 23 July 2005 falls on a Saturday and 24 July 2005 falls on a Sunday. This new Appeal Brief is being submitted in response to the Notification of Non-Compliant Appeal Brief, dated 2 September 2005. The one-month due date for submitting this new Appeal Brief is 3 October 2005, as 2 October 2005 fell on a Sunday.

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By: _____

This brief is accompanied by a Transmittal authorizing the requisite fee of $500.00 as set forth in 37 C.F.R. § 41.20(b)(2) be charged to Deposit Account No. **500777**. In the event that the Transmittal is not enclosed or the authorized amount is incorrect, please charge any required fee to Deposit Account No. **500777**. Please credit any excess payment to the same account.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such Petition for Extension of Time and any other fee required by this document and not submitted herewith should be charged to Deposit Account No. 500777. Any refund should be credited to Deposit Account No. 500777.

**Real Party in Interest (37 C.F.R. § 41.37(c)(1)(i)):**

The real party in interest in the present Application is i2 Technologies US, Inc., as indicated by an Assignment recorded on 13 November 2001, from the inventor to i2 Technologies US, Inc., in the Assignment Records of the United States Patent and Trademark Office (the "PTO") at Reel 012300, Frame 0249.

**Related Appeals and Interferences (37 C.F.R. § 41.37(c)(1)(ii)):**

There are no related appeals or declared interferences that will directly affect or be directly affected by a decision by the Board of Patent Appeals and Interferences (the "Board") in the present appeal to the knowledge of the undersigned.

**Status of Claims (37 C.F.R. § 41.37(c)(1)(iii)):**

The present Application claims priority from Provisional Application No. 60/158,654 filed 8 October 1999. The Application was originally filed on 8 October 2000 with six (6) claims. In an Amendment filed on 2 January 2004, new claims 7-34 were added. In an Amendment filed on 7 June 2004, claims 1, 4, and 23 were canceled. In an Amendment

filed on 7 October 2004, new claims 35-40 were added. Thus, claims 2, 3, 5-22, and 24-40 are presently under consideration in the appealed Application.

In a Final Office Action dated 23 September 2004 (the "Final Office Action"), the Examiner finally rejected claims 2, 3, 5-22, and 24-40 over the cited references.

The status of the claims is, therefore, believed to be as follows:

| | |
|---|---|
| Allowed claims: | None |
| Claims objected to: | None |
| Claims rejected: | 2, 3, 5-22, and 24-40 |

Appellants hereby appeal the Examiner's final rejection of the foregoing claims (2, 3, 5-22, and 24-40), which presently stand rejected over the cited references. Appealed claims 2, 3, 5-22, and 24-40 are set forth in a Claims Appendix, attached hereto, pursuant to 37 C.F.R. § 41.37(c)(1)(viii).

**Status of Amendments (37 C.F.R. § 41.37(c)(1)(iv)):**

Appellants filed no amendments subsequent to the Final Office Action.

**Summary of Claimed Subject Matter (37 C.F.R. § 41.37(c)(1)(v)):**

The independent claims involved in the present appeal relate, in general, to a system, method, or software involved with selecting a portfolio of products to be developed. One example of a portfolio planner system is shown in Figure 1. In this example, the portfolio planner system resides on a server 10 that can be accessed by various people involved in the planning process, such as program managers and resource managers 12, portfolio analysts 22, and a portfolio team 24.[1]

The system uses various information to develop an optimum portfolio.[2] Referring to Figure 7, the system includes a set of candidate products, expressed as a product mix 94,

[1] Specification, p. 7, l. 10, through p. 8, l. 4.
[2] Specification, p. 8, ll. 5-6.

and a set of financial projections 100 associated with each candidate product.[3] The set of financial projections 100 provides a plurality of profit projections for each of a set of possible introduction dates for the candidate product.[4] The system further includes a set of project definitions 98, such that at least one of the set of project definitions 98 is associated with each candidate product of the product mix 94.[5] Each of the project definitions 98 includes a development schedule and resource requirements.[6] A set of available resources 96 is also included in the system.[7]

The system also includes a planning engine 90 operable to read in the set of candidate products of the product mix 94, the set of project definitions 98, and the set of available resources 96.[8] The planning engine 90 selects a set of candidate products of the product mix 94 that meets all resource availability constraints and maximizes profits.[9] The planning engine 90 further generates a development schedule 104 for the selected set of candidate products using the financial projections for the selected set of candidate products as a weighted factor in generating the development schedule 104.[10] The development schedule 104 reflects that products more affected by time are scheduled for faster production than products less affected by time.[11]

Figure 6 illustrates one particular example of the "time element" as it relates to profit projections. A graph 74 includes three profit curves 76, 78, 80, which are shifted in time to represent different product introduction dates. In this example, the peaks of the curves diminish as the product is introduced later in time. At some point, there may be only minimal profits if the product is introduced too late. Total profits over the lifetime of a product is found by integrating under the separate profit curves.[12]

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[3] Specification, p. 8, ll. 19-20.
[4] Specification, p. 8, ll. 15-21; p. 11, ll. 14-20; p. 12, ll. 19-20.
[5] Specification, p. 12, l. 19; p. 13, ll. 2-3, 4-5.
[6] Specification, p. 9, l. 17, through p. 10, l. 18.
[7] Specification, p. 12, ll. 21-22.
[8] Specification, p. 12, ll. 15-20.
[9] Specification, p. 13, ll. 10-16.
[10] Specification, p. 13, ll. 20-22.
[11] Specification, p. 13, l. 22, through p. 14, l. 2.
[12] Specification, p. 11, l. 21, through p. 12, l. 5.

Each possible product introduction date will have a corresponding overall profit figure associated with it. Some products may be relatively insensitive to the date of introduction and these products can be developed to be introduced at any convenient time. Other products are extremely time sensitive and must be developed as quickly as possible. The time impact on product contribution to corporate profits is used as part of the data considered in the optimization process.[13] This is achieved by provides a plurality of profit projections for each of a set of possible introduction dates for the candidate product.[14]

As discussed in the Specification on page 7, line 10, through page 8, line 4, the program managers and resource managers 12, portfolio analysts 22, and portfolio team 26 can be associated with one or more computers, *e.g.* server 10. The computers can include processors and associated memory for executing instructions and manipulating information according to the operation of the portfolio planner system. For example, the one or more computers having one or more processors can constitute examples of means for selecting a set of candidate products to be developed, means for calculating a set of financial projections for each candidate product, means for determining an impact that the time of introduction has on profits associated with the candidate product, means for providing at least one project definition for each candidate product, means for providing a set of available resources, and means for generating a development schedule from the set of candidate products associated with the services provided by the present portfolio planner system.

**Grounds of Rejection to be Reviewed on Appeal (37 C.F.R. § 41.37(c)(1)(vi)):**

Issue No. 1. Claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 presently stand rejected under 35 U.S.C. § 103(a) over U.S. Patent 5,311,438 to Sellers *et al.* ("Sellers") in view of U.S. Patent 6,578,005 to Lesaint *et al.* ("Lesaint"). Thus, the issue is whether the teachings of these references disclose or suggest all of the limitations of the claims as necessary for establishing a *prima facie* case of obviousness, whether the

[13] Specification, p. 12, ll. 6-11.
[14] Specification, p. 8, ll. 15-21; p. 11, ll. 14-20; p. 12, ll. 19-20.

teachings of these references can properly be considered modifiable so as to establish a *prima facie* case of obviousness, and whether these references can be properly combined to establish a *prima facie* case of obviousness.

Issue No. 2. Claims 8, 14, 16, 22, 27, 33, and 35-40 presently stand rejected under 35 U.S.C.§ 103(a) over Sellers in view of Lesaint and U.S. Patent 6,671,673 to Baseman *et al.* ("Baseman"). Thus, the issue is whether the teachings of these references disclose or suggest all of the limitations of the claims as necessary for establishing a *prima facie* case of obviousness, whether the teachings of these references can properly be considered modifiable so as to establish a *prima facie* case of obviousness, and whether these references can be properly combined to establish a *prima facie* case of obviousness.

Issue No. 3. Claims 12, 13, 20, 21, 31, and 32 presently stand rejected under U.S.C.§ 103(a) over Sellers in view of Lesaint and U.S. Patent 5,408,663 to Miller ("Miller"). Thus, the issue is whether the teachings of these references disclose or suggest all of the limitations of the claims as necessary for establishing a *prima facie* case of obviousness, whether the teachings of these references can properly be considered modifiable so as to establish a *prima facie* case of obviousness, and whether these references can be properly combined to establish a *prima facie* case of obviousness.

**Argument (37 C.F.R. § 41.37(c)(1)(vii)):**

Claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 presently stand rejected under 35 U.S.C. § 103(a) over Sellers in view of Lesaint. Claims 8, 14, 16, 22, 27, 33, and 35-40 presently stand rejected under 35 U.S.C.§ 103(a) over Sellers in view of Lesaint and Baseman. Claims 12, 13, 20, 21, 31, and 32 presently stand rejected under U.S.C.§ 103(a) over Sellers in view of Lesaint and Miller.

Sellers

Sellers discloses "a plant-level system that utilizes a common database and product definition for integrating together various manufacturing systems."[15] Sellers' integrated manufacturing system utilizes a common product definition, data format, and data storage location. The product definition provides a link between any of the various manufacturing systems and provides for use of the information contained in the product definition.[16]

An item, specification, and container structure and relationship within the common database forms the unique product definition of Sellers' manufacturing system. Items may include the various resources used in a manufacturing process to produce one or more end products. Each item is linked to one or more specifications. The specifications may include performance characteristics of the particular item and these performance characteristics define the item. Each specification is linked to one or more containers. A container may indicate either the physical location where the particular item is stored or the type of packaging used to contain the material.[17]

Sellers' also discloses the use of a common product definition as the basis for integrating a new product development system to a plant-level manufacturing system. The new product development system uses the same product definition as the plant-level system and the same data format. The product definition provides a link between the new product development system and any of the various manufacturing systems that are also integrated with the plant level system, which automates and documents the pipelined process of developing new products. Data is stored in the common database product definition during new product development and is automatically linked to the systems required to set up the production run.[18]

[15] Sellers, col. 1, ll. 12-14.
[16] Sellers, col. 3, ll. 3-13.
[17] Sellers, col. 3, ll. 14-26.
[18] Sellers, col. 3, l. 58, through col. 4, l. 5.

Lesaint

Lesaint teaches a method and apparatus for resource allocation when schedule changes are incorporated in real time. Lesaint's method allocates a plurality of resources to a plurality of tasks by a method that provides initial information relating to the tasks to be allocated and the resources available to perform the tasks. An initial series of schedules is first generated allocating resources to the tasks and then modifying the individual schedule of at least one resource in response to updated information. Changes to individual schedules may be made in response to such updated information independently of the schedule generation. The initial, series of schedules may be generated in a two-stage process in which a rule-based system allocates tasks selected as being difficult to allocate (*e.g.*, because they are linked to other tasks), then a stochastic (*i.e.*, non-systematic) search system compiles the rest of the schedule. Periodically, the stochastic system may be interrupted to allow a further rule-based system to analyze the schedules created thus far and fix the best ones in the schedule, so that the stochastic system can then concentrate on improving the remaining schedules. In order to allow the system to handle rapid changes in the requirements for tasks and the resources on a scale faster than the time required to generate the schedules, a schedule modification system is arranged to make changes in the short term in between schedule updates delivered by the schedule generation system.[19]

Baseman

Baseman discloses a method for generating a strategic business plan to improve operations and to closely monitor various performance measures of an enterprise. According to Baseman's method, this is accomplished employing a more comprehensive approach to maximizing profitability, increasing revenue, and explicitly considering risk. In particular, the method extends supply chain management using financial management considerations, extends financial management using supply chain management considerations, employs supply chain management techniques to improve financial management, and employs financial management techniques to improve supply chain

management. The method uses information and models derived from at least one of the following business processes: accounting; cash management; funds management, financing, profitability analysis, risk management, loan management, treasury management, investments management, business development, order management, demand planning and forecasting, procurement, production planning, inventory management, transportation and distribution, and supply chain design.[20]

Miller

Miller teaches methods of operating a digital computer to optimize project scheduling. According to Miller's method, the schedule is processed iteratively so that on each iteration a particular task is selected for modification according to a preset policy and data defining an aspect of that task is adjusted in a small step when the overall effects of a schedule, such as total project duration or cost, are unsatisfactory. A schedule is further optimized to fit the available resources by a repetitive process of assigning resources having the proper capabilities to tasks according to a predetermined order of tasks and testing whether the assigned resource can permit shortening of the task duration. Further methods select an optimum mix of capabilities to be provided by each of several resources to be hired for a project.[21]

Appellants respectfully submit that the rejections of claims 2, 3, 5-22, and 24-40 under 35 U.S.C. § 103(a) are improper and should be reversed.

## I. Issue No. 1 – Obviousness of Claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34:

Claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 presently stand rejected under 35 U.S.C. § 103(a) over Sellers in view of Lesaint. As the following will show, the rejection is improper and should be reversed, because (1) the cited references fail to disclose or suggest all of the limitations set forth in the rejected claims; (2) the prior art fails

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[19] Lesaint, Abstract.
[20] Baseman, Abstract.
[21] Miller, Abstract.

to provide motivation for one skilled in the art at the time of the invention to combine Sellers and Lesaint; and (3) Lesaint is outside the scope and content of the prior art.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there ***must be some suggestion or motivation***, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) ***must teach or suggest all the claim limitations***. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and ***not based on applicant's disclosure***.[22] Moreover, all the claim limitations must be taught or suggested by the prior art.[23] If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.[24]

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.[25] In fact, the absence of a suggestion to combine is dispositive in an obviousness determination.[26] The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination.[27] The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure.[28]

A recent Federal Circuit case makes it clear that, in an obviousness situation, ***the prior art must disclose each and every element of the claimed invention***, and that

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[22] *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142 (emphasis added).
[23] *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).
[24] *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.
[25] *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986).
[26] *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997).
[27] *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.
[28] *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991; *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

any motivation to combine or modify the prior art must be based upon a suggestion *in* the prior art.[29] Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness.[30]

## A. Claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34

Representative, independent claim 7 recites:

> A computer-implemented method for selecting a portfolio of products to be developed, the method performed using a computer system comprising one or more processing units and one or more memory units, the method comprising:
>
> using the computer system, selecting a set of candidate products to be developed;
>
> using the computer system, calculating a set of financial projections for each candidate product, the set of financial projections for a candidate product providing a future profit determination for each of a set of possible product introduction dates for the candidate product;
>
> using the computer system, for each candidate product, determining based on the set of financial projections an impact that the time of introduction has on profits associated with the candidate product;
>
> using the computer system, providing at least one project definition for each candidate product, such project definitions each including a development schedule and resource requirements;
>
> using the computer system, providing a set of available resources; and
>
> using the computer system, generating a development schedule for the set of candidate products to maximize profit based at least on the determined impact that the time of introduction has on profits associated with each of the candidate products and using the financial projections for the candidate products as a weighted factor in generating the development schedule such that products more affected by time are scheduled for faster production than products less affected by time, the development schedule providing for product development in accordance with project definitions for each of the candidate products and resource constraints.

Independent claims 15, 26 and 34 each recite similar limitations and, thus, are allowable over the cited references for the same reasons set forth below. Claims 2, 3, and 9-11 depend from claim 7. Claims 5, 6, and 17-19 depend from claim 15. Claims 24, 25, 28-30, and 32 depend from claim 26. Claim 1 is discussed below as an example.

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[29] *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

Appellants maintain that the cited references fail to disclose, teach, or suggest:

> a set of financial projections for a candidate product providing a future profit determination ***for each of a set of possible product introduction dates for the candidate product***...

(emphasis added). In the Advisory Action, the Office cites a portion of Sellers purportedly disclosing this limitation.[31] The cited portion of Sellers discloses a "Design Request Financial Analysis conversation (PD19) to create, maintain, and review various financial simulations associated with for *[sic]* a design request."[32] One of the financial parameters disclosed in Sellers is a "profitability index."[33]

The Office alleges that "this profitability index includes a financial simulation that includes the economic life of the product"; therefore, it "reflects financial projections for a candidate product having a future profit determination for each of a set of possible product introduction dates."[34] Applicant respectfully asserts that Sellers is silent with regard to a ***set*** of financial projections ***for each of a set*** of possible product introduction dates. Rather, one of ordinary skill in the art would appreciate that Sellers' profitability index, and indeed all of Sellers' financial projections, are based on one product introduction date, since Sellers teaches that examples of the financial parameters are the net present value (rather than net present values), profitability index (rather than profitability indices), internal rate of return (rather than internal rates of return), and the present value payback period (rather than present value payback periods). In other words, if Sellers were to generate financial projections ***for each of a set*** of possible introduction dates, which Applicant disputes, multiple financial parameters of each type (*e.g.*, net present value, profitability index, *etc.*) would be generated. Accordingly, Sellers fails to teach or suggest to one of ordinary skill in the art a set of financial projections for a candidate product providing a future profit determination ***for each of a set of possible product introduction dates*** for the candidate product, as required by each of the rejected claims. Claim 7, therefore, is allowable over the cited references.

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[30] *Id.* at 1434-35.
[31] Advisory Action, Continuation Sheet, ll. 5-8.
[32] Sellers, col. 113, ll. 32-49.
[33] Sellers, col. 113, ll. 47-48.

Moreover, Appellant respectfully asserts the Office's use of the term "profitability index" is not consistent with the definition generally understood by those of ordinary skill in the art. The Office first construed a "profitability index" to reflect "financial projections for a candidate product providing a future profit determination for each of a set of possible product introduction dates" in its Advisory Action.[35] One definition of the term "profitability index"[36] is:

$$\frac{\text{Present Value of Future Cash Flows}}{\text{Initial Investment}}$$

Thus, Appellant respectfully submits that one of ordinary skill in the art would understand and appreciate that, in the context of the present application, a "profitability index" is the present value of future cash flows for a product introduced on a particular date divided by the initial investment for introducing the product. One of ordinary skill in the art would not apply the term "profitability index" to more than one product introduction date, because it would be impossible to calculate the present value of future cash flows as a single, representative number if the product is introduced on multiple dates. In other words, the present value of future cash flows would have multiple values, corresponding and depending upon the introduction date of the product.

Moreover, the initial investment would likely be different for differing introduction dates due to, for example, differing fixed costs corresponding to the time prior to the introduction date. In summary, for ***multiple***, possible product introduction dates to be considered, ***multiple*** profitability indices would be required. The present invention bears this out in Figure 6, which illustrates possible revenue curves for separate product introduction dates. Accordingly, Sellers fails to teach or suggest to one of ordinary skill in the art a set of financial projections for a candidate product providing a future profit determination ***for each of a set of possible product introduction dates*** for the

[34] Advisory Action, Continuation Sheet, ll. 6-8.
[35] Advisory Action, Continuation Sheet, ll. 7-8.
[36] *See* "profitability index." *Investopedia.com*, 2005. http://www.investopedia.com/terms/p/profitability.asp (23 May 2005).

candidate product, as required by each of the rejected claims. Claim 7 is, therefore, allowable over the cited references.

Still concerning independent claim 7, the Office, in its Advisory Action, relies on another passage of Sellers to teach "a set of possible product introduction dates", as required by claim 7,[37] which provides that "[i]t may also display an employee's previous exposure information, including the start and end dates of the exposure."[38] In a broader passage (including the passage cited by the Office), Sellers discloses "[t]he Employee Exposure Inquiry conversation (EN18) may be used to review information about an employee's current or past exposure to items or physical agents." It may "display information about exposures that currently affect an employee" or "an employee's previous exposure information, including the start and end dates of the exposure", *etc.*[39]

Appellant respectfully asserts that this teaching by Sellers relates only to tracking an employee's exposure to items or physical agents that may be harmful to the employee. The employee exposure tracking portion of Sellers' invention has absolutely no connection with any financial projections concerning a product that may be introduced. In particular, tracking start and end dates of an employee's exposure to items or physical agents is not considered when calculating Sellers' profitability index and can provide no basis for the Office's allegation that Sellers' profitability index considers multiple, possible product introduction dates. Thus, Sellers, either singly or in combination with Lesaint, fails to teach or suggest a set of financial projections for a candidate product providing a future profit determination ***for each of a set of possible product introduction dates for the candidate product***, as required by claim 7. For at least this reason, claim 7 is allowable over the Sellers irrespective of the teachings of Lesaint.

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here, the claimed invention

[37] Advisory Action, Continuation Sheet, ll. 9-10.
[38] Sellers, col. 43, ll. 3-5.

taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill at the time of the invention would have been prompted to combine the teachings of the references to arrive at the claimed invention.

The Office proposes that the motivation for combining Sellers and Lesaint rests in "processing tasks that can be done immediately first."[40] Lesaint teaches that "priority will be given to tasks that can be done immediately",[41] but this is merely a feature of Lesaint's system rather than a motivation to combine Sellers and Lesaint. "When the incentive to combine the teachings of the references is not readily apparent, it is the duty of the examiner to explain why combination of the reference teachings is proper."[42] The Office has failed in this burden, as it has only provided a feature of Lesaint's system as the motivation to combine, rather than why the combination would be desirable. In other words, the pertinent question is:

> *Why would Lesaint's teaching that 'priority will be given to tasks that can be done immediately' motivate one of ordinary skill in the art at the time of the invention to combine Sellers and Lesaint?*

Appellant respectfully asserts that such motivation is lacking. "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."[43] The Court of Appeals for the Federal Circuit has held time and again that "[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination."[44] Appellants respectfully submit that the Examiner appears to have combined Sellers and Lesaint, with the benefit of hindsight using Appellants' claims as a blueprint, to reconstruct Appellants' claims.

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[39] Sellers, col. 42, l. 63, through col. 43, l. 5.
[40] Final Office Action (dated 25 January 2005), p. 5, l. 9.
[41] Lesaint, col. 13, ll. 7-8.
[42] *Ex parte Skinner*, 2 U.S.P.Q.2d (BNA) 1788, 1790 (Bd. Pat. App. & Int. 1987).
[43] *In re Gordon*, 221 U.S.P.Q. (BNA) 1125, 1127 (Fed. Cir. 1984); *In re Brouwer*, 37 U.S.P.Q.2d (BNA) 1663, 1666 (Fed. Cir. 1995); *In re Ochiai*, 37 U.S.P.Q.2d (BNA) 1127, 1131 (Fed. Cir. 1995).
[44] *In re Bond*, 910 F.2d at 834, 15 U.S.P.Q.2d at 1568, *quoting Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 U.S.P.Q. (BNA) 644, 647 (Fed. Cir. 1986) (affirming holding of nonobviousness); *see also, e.g., In re Stencel*, 828 F.2d 751, 755, 4 U.S.P.Q.2d (BNA) 1071, 1073 (Fed. Cir. 1987) (reversing Board holding of obviousness); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. (BNA) 929, 933 (Fed. Cir. 1987) (reversing district court holding of obviousness).

The MPEP and the Federal Circuit repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the MPEP states:

> The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.[45]

The governing Federal Circuit cases are equally clear on this point, stating that "[a] critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field."[46] Similarly, the Federal Circuit provides that "[t]he invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."[47]

Accordingly, since the prior art fails to provide the required teaching, suggestion, or motivation to combine Sellers and Lesaint, Appellant respectfully submits that the Examiner's conclusions set forth in the Final Office Action and the Advisory Action fall well short of the requirements set forth in the MPEP and the governing Federal Circuit case law for demonstrating a *prima facie* case of obviousness. Thus, Appellants again respectfully submit that the Examiner's proposed combination of Sellers and Lesaint appears to be merely an attempt to reconstruct Appellants' claims, with the benefit of hindsight using Appellants' claims as a blueprint, and are unsupported by the teachings of the prior art.

Moreover, Appellant maintains that the combination of Sellers and Lesaint is improper. A reference can be asserted against the claimed invention under §103 only if (1) it is within Applicant's field of endeavor, or (2) is reasonably pertinent to the problem facing Applicant even though not within Applicant's field of endeavor.[48]

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[45] MPEP § 2142.
[46] *In re Kotzab*, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000).
[47] *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).
[48] *In re Clay*, 23 U.S.P.Q.2d (BNA) 1058, 1060 (Fed. Cir. 1992).

Lesaint relates to a technique for scheduling tasks to service technicians[49] not to generating a development schedule for candidate products, as does the present invention. Thus, Lesaint is not within Applicant's field of endeavor and can be within the scope and content of the prior art only if it is "reasonably pertinent" to Applicant's invention.[50]

Nor is Lesaint reasonably pertinent to Applicant's invention. Applicant's invention is directed to generating a development schedule using financial projections as a weighted factor. Lesaint, however, is directed to scheduling based on time constraints, using the Office's construction. Thus, even though Lesaint concerns scheduling, it is not reasonably pertinent to Applicant's invention.

The discussion in *Clay* is pertinent to the present case. In addressing the first part of the test for analogous art, the Federal Circuit reasoned:

> *The PTO argues that [the reference] and [Applicant's] inventions are part of a common endeavor—"maximizing withdrawal of petroleum stored in petroleum reservoirs." However, [the reference] cannot be considered to be within [Applicant's] field of endeavor merely because both relate to the petroleum industry. ...[Applicant's] field of endeavor is the storage of refined liquid hydrocarbons. The field of endeavor of the [reference], on the other hand, is the extraction of crude petroleum. The Board clearly erred in considering [the reference] to be within the same field of endeavor as [Applicant's].*[51]

This reasoning reads directly on the present case with only slight modification for the technologies involved. With respect to the second part of the test, the Federal Circuit, after a discussion of the two inventions, held:

> *A person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for storing refined petroleum by considering a reference dealing with plugging underground formation anomalies. The Board's finding to the contrary is clearly erroneous.*[52]

Again, with some modification for the involved technologies, the reasoning applies directly to the present case. Lesaint, however, does not deal with the problem of

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[49] Lesaint, col. 1, ll. 14-19.
[50] *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) (reversing Board holding of obviousness).
[51] *Clay*, 23 U.S.P.Q.2d (BNA) at 1060.
[52] *Clay*, 23 U.S.P.Q.2d (BNA) at 1061.

generating a development schedule using financial projections, as does the present invention. Thus, Lesaint is not "reasonably pertinent" to Applicant's invention and is, therefore, outside the scope and content of the prior art.

For at least the reasons presented above, Appellants respectfully request reversal of the Examiner's rejection of independent claim 7 and its dependent claims and request allowance of independent claim 7 and its dependent claims. For at least analogous reasons, Appellants also respectfully request reversal of the Examiner's rejection of independent claims 15, 26, and 34 and the claims depending from claims 15 and 26 and request allowance of claims 15, 26, and 34 and the claims depending from claims 15 and 26.

## B. Claims 5, 6, 15, and 17-19

Independent claim 15 recites:

> A system for selecting a portfolio of products to be developed, comprising:
> a set of candidate products;
> a set of financial projections associated with each candidate product, the set of financial projections for a candidate product providing a plurality of profit projections for each of a set of possible introduction dates for the candidate product;
> a set of project definitions, at least one project definition associated with each candidate product, each of such project definitions comprising a development schedule and resource requirements;
> a set of available resources; and
> a planning engine operable to:
> read in the set of candidate products, the sets of financial projections for the candidate products, the sets of project definitions for the candidate products, and the set of available resources
> select a set of candidate products that meets all resource availability constraints and maximizes profits; and
> generate a development schedule for the selected set of candidate products, the financial projections for the candidate products being used by the planning engine as a weighted factor in generating the development schedule such that products more affected by time are scheduled for faster production than products less affected by time.

Appellants maintain that the cited references fail to disclose, teach, or suggest:

> a planning engine ***operable to...select*** a set of candidate products that meets all resource availability constraints and maximizes profits...

(emphasis added). In its Advisory Action, the Office relies upon several passages from Sellers to disclose this particular limitation.[53] In the cited passages, Sellers discloses a system "[t]o ***browse*** physical specification information", "***review*** test specifications",[54] "***browse*** the results of a present value analysis", "***review*** financial commitments and estimated costs",[55] and "***review*** and ***maintain*** information"[56] (emphasis added). The Office admits on the record that "[a]ll of these are performed using human intervention."[57] The Office, however, alleges that, even though "[i]t is the human that manually inputs the information", "it is the computer that processes the information, thereby acting as an engine."[58]

Appellant respectfully asserts that whether Sellers' system acts as some sort of engine is not pertinent to the present issue, because claim 15 requires a planning engine that is "***operable to...select*** a set of candidate products that meets all resource availability constraints and maximizes profits." Even if Sellers' system processes the human-input information in some way, as the Office alleges, Sellers neither discloses nor suggests that its system ***selects***, in any way, a set of candidate products. Rather, one of ordinary skill in the art would appreciate that, in the Sellers system, candidate products are ***selected using human intervention*** rather than via any planning engine. Sellers' system, whether an "engine" or not, fails to perform a selection, as required by claim 15.

Thus, Sellers, either singly or in combination with Lesaint, fails to disclose or suggest a planning engine ***operable to select*** a set of candidate products that meets all resource availability constraints and maximizes profits, as required by claim 15. For at least this additional reason, Appellants respectfully request reversal of the Examiner's

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[53] Advisory Action, Continuation Sheet, l. 13-14.
[54] Sellers, col. 87, ll. 18-23.
[55] Sellers, col. 89, ll. 5-10.
[56] Sellers, col. 107, ll. 5-9.
[57] Advisory Action, Continuation Sheet, l. 15.
[58] Advisory Action, Continuation Sheet, ll. 16-17.

rejection of independent claim 15 and its dependent claims and request allowance of independent claim 15 and its dependent claims.

In summary, Appellant respectfully asserts that claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 are allowable over Sellers in view of Lesaint. Sellers fails to disclose or suggest the limitations alleged by the Office to be taught by Sellers. Moreover, the prior art fails to provide motivation for one skilled in the art at the time of the invention to combine Sellers and Lesaint. Furthermore, at least Lesaint is outside the scope and content of the prior art. Accordingly, claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 are allowable over the cited references irrespective of the teaching of Lesaint. Appellant respectfully requests reversal of the Examiner's rejection of claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 under 35 U.S.C. § 103(a) over Sellers in view of Lesaint and request allowance of claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34.

## II. Issue No. 2 – Obviousness of Claims 8, 14, 16, 22, 27, 33, and 35-40:

Claims 8, 14, 16, 22, 27, 33, and 35-40 stand rejected under 35 U.S.C. § 103(a) over Sellers in view of Lesaint and Baseman. As the following will show, the rejection is improper and should be reversed, because (1) Baseman is not prior art to the present application and (2) the cited references fail to disclose or suggest all of the limitations set forth in the rejected claims.

### Claims 8, 14, 16, 22, 27, 33, and 35-40

***Baseman is not prior art to the present application.*** Baseman has a filing date of ***24 March 2000*** and claims no benefit to any prior application. The present application has a filing date of 8 October 2000 and claims the benefit of the filing date of U.S. Provisional Application No. 60/158,654, which is ***8 October 1999. Accordingly, the effective filing date of the present application predates the filing date of Baseman.*** Baseman, therefore, is not prior art to the present application. The rejection of claims 8, 14, 16, 22, 27, 33, and 35-40 over Sellers in view of Lesaint and Baseman is, therefore, improper and should be reversed.

Moreover, dependent claims 8, 14, 35, and 36 (which depend from independent claim 7), dependent claims 16, 22, 37, and 38 (which depend from independent claim 15), and dependent claims 27, 33, 39, and 40 (which depend from independent claim 26) depend from independent claims that Appellant has shown above (*i.e.*, regarding "Issue No. 1") to be clearly allowable over Sellers in view of Lesaint. In this rejection, the Office continues to rely upon Sellers to teach:

> a set of financial projections for a candidate product providing a future profit determination ***for each of a set of possible product introduction dates for the candidate product***...

(emphasis added) as required by claims 8, 14, 16, 22, 27, 33, and 35-40, and:

> a planning engine ***operable to...select*** a set of candidate products that meets all resource availability constraints and maximizes profits...

(emphasis added) as required by claims 16, 22, 37, and 38. Dependent claims 8, 14, 16, 22, 27, 33, and 35-40 are furthermore allowable for at least the reasons set forth above concerning "Issue No. 1."

For at least these reasons, Appellant respectfully requests reversal of the Examiner's rejection of claims 8, 14, 16, 22, 27, 33, and 35-40 under U.S.C. § 103(a) over Sellers in view of Lesaint and Baseman and requests allowance of claims 8, 14, 16, 22, 27, 33, and 35-40.

## III. Issue No. 3 – Obviousness of Claims 12, 13, 20, 21, 31, and 32:

Claims 12, 13, 20, 21, 31, and 32 stand rejected under 35 U.S.C. § 103(a) over Sellers in view of Lesaint and Miller. As the following will show, the rejection is improper and should be reversed, because (1) the cited references fail to disclose or suggest all of the limitations set forth in the rejected claims; and (2) the prior art fails to provide motivation for one skilled in the art at the time of the invention to combine the cited references.

**Claims 12, 13, 20, 21, 31, and 32**

Dependent claims 12 and 13 (which depend from independent claim 7), dependent claims 20 and 21 (which depend from independent claim 15), and dependent claims 31 and 32 (which depend from independent claim 26) depend from independent claims that Appellant has shown above (*i.e.*, regarding "Issue No. 1") to be clearly allowable over Sellers in view of Lesaint. In this rejection, the Office continues to rely upon Sellers to teach:

> a set of financial projections for a candidate product providing a future profit determination ***for each of a set of possible product introduction dates for the candidate product***...

(emphasis added) as required by claims 12, 13, 20, 21, 31, and 32, and:

> a planning engine ***operable to...select*** a set of candidate products that meets all resource availability constraints and maximizes profits...

(emphasis added) as required by claims 20 and 21. Dependent claims 12, 13, 20, 21, 31, and 32 are allowable for at least this reason. Additionally, dependent claims 12, 13, 20, 21, 31, and 32 recite further patentable distinctions over the cited references.

Representative claim 12 recites

> The method of Claim 11, further comprising assigning ***a probability of completion*** to each of the one or more phases, the probability of completion for use in allocating resources when generating the development schedule in accordance with the project definitions and the resource constraints.

(emphasis added). Claim 13 depends from claim 12. Claims 20, 21, 31, and 32 each recite similar limitations. Accordingly, claims 13, 20, 21, 31, and 32 are furthermore allowable over the cited references for at least the same reasons set forth below.

Appelant maintains that the cited references fail to disclose, teach, or suggest ***a probability of completion***, as required by the rejected claims. In the Final Office Action, the Office acknowledges on the record that neither Sellers nor Lesaint discloses or

suggests this limitation.[59] The Office, however, alleges that Miller teaches this limitation,[60] in that:

> multiplying cost per unit time of the resource assigned to meet that requirement by the amount of time required to meet the requirement where the cost per unit time of the resource assigned to meet the requirement represents the resource since the resource must be defined when determining the cost per unit time and the amount of time required to meet the requirement for that particular resource represents the probability of completion since the probability that the task will be completed depends on the amount of required time to complete the task.[61]

Irrespective of the Office's explanation, Miller is silent with regard to any probability of completion. The present Specification teaches that "[w]hen there is a ***possibility that a project will not be completed***, a probability of completion can be assigned in advance to each phase of the project"[62] (emphasis added). Miller discloses:

> After the completion of leveling step 30, in the next stage 48 of the process, the system calculates the effects vector. That is, the system calculates the set of global effects resulting from the schedule. One such effect is the total time or duration of the schedule, which is simply the sum of duration estimates for all of the tasks on a critical path. Another overall effect is the overall risk. *Overall risk in this context is the risk that* ***the actual time required in the aggregate to perform the various tasks will exceed the overall duration set for the schedule*** *by more than some preselected amount. The risk can be expressed for example* ***as a probability*** *or as some other analogous measure of variance in the actual completion time.*
>
> For each individual task on the critical path, the expected variance of the actual completion time from the duration estimate used in the schedule is calculated from the input data for that task supplied as part of step 20. If a best case and a worse case completion time are supplied for a particular task, the probability that the actual completion time will exceed a particular duration estimate is a function of how close the duration estimate is to either extreme. Thus, where the duration estimate is close to the best case estimate, there is a high probability that the actual completion time will exceed the duration estimate but where the duration estimate is close to the worse case completion time, there is a low probability of delay extending the completion time beyond the estimate. The well-known function relating probability of delay to the position of the duration estimate in the best case--

[59] Final Office Action (dated 25 January 2005), p. 13, ll. 1-4.
[60] Final Office Action (dated 25 January 2005), p. 13, ll. 7-20.
[61] Final Office Action (dated 25 January 2005), p. 13, ll. 11-17.
[62] Specification, p. 10, ll. 19-20.

> worse case range is referred to as a best case–worst case risk model function. Alternatively, *a measure of variance,* ***such as a measure of the probability of delay,*** *may be supplied for each task as part of the input data*, without use of a best case–worse case range. The variance of the sum–the probability of delay with respect to the overall duration is calculated from the variances or individual delay probabilities for the individual tasks on the critical path, using standard statistical formulas for the variance of a sum

(emphasis added).[63] Appellant respectfully assert that Miller teaches a probability that a task may be ***delayed***, rather than a probability that a project will ***not be completed***. Miller is silent with regard to any possibility that a task will not be completed but, rather, discusses that tasks may take longer than expected and, thus, are merely delayed.

As the Office relies upon Miller to teach a probability of completion and Miller fails to disclose or suggest a probability of completion, the cited references fail to disclose or suggest all of the limitations set forth in claim 12. For at least this reason, claim 12 is allowable over the cited references.

Moreover, Appellant respectfully asserts that the prior art fails to provide any motivation to combine Sellers, Lesaint, and Miller. The Office alleges that the motivation would have been "determining approximately how long it would take for a phase to be completed."[64] Both Sellers and Lesaint disclose schedules; thus, users of their systems would already know "approximately how long it would take for a phase to be completed." One of ordinary skill in the art would not appreciate any benefit of combining Miller with Sellers and Lesaint to determine how long it would take for a phase to be completed because Sellers and Lesaint provide schedules. As discussed above concerning the rejection of claims 2, 3, 5-7, 9-11, 15, 17-19, 24-26, 28-30, 32 and 34 (*i.e.*, "Issue No. 1"), "[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination."[65] Appellants respectfully submit that the Examiner appears to have

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[63] Miller, col. 12, ll. 51-68.
[64] Final Office Action (dated 25 January 2005), p. 12, ll. 21-22.
[65] *In re Bond*, 910 F.2d at 834, 15 U.S.P.Q.2d at 1568, *quoting Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 U.S.P.Q. (BNA) 644, 647 (Fed. Cir. 1986) (affirming holding of nonobviousness); *see also, e.g., In re Stencel*, 828 F.2d 751, 755, 4 U.S.P.Q.2d (BNA) 1071, 1073 (Fed. Cir. 1987) (reversing Board holding of obviousness); *ACS Hospital Systems, Inc. v. Montefiore Hospital*,

combined Sellers, Lesaint, and Miller, with the benefit of hindsight using Appellants' claims as a blueprint, to reconstruct Appellants' claims. Such hindsight reconstruction is improper and, accordingly, the rejection of claim 12 should be reversed.

Accordingly, for at least the reasons set forth above, Appellant respectfully requests reversal of the Office's rejection of claim 12 and its dependent claim (*i.e.*, claim 13) and requests allowance of independent claim 12 and its dependent claim. For at least analogous reasons, Appellant also respectfully requests reversal of the Office's rejection of claims 20, 21, 31, and 32 and requests allowance of claims 20, 21, 31, and 32.

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732 F.2d 1572, 1577, 221 U.S.P.Q. (BNA) 929, 933 (Fed. Cir. 1987) (reversing district court holding of obviousness).

**CONCLUSION:**

In view of the foregoing, Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the Examiner's rejections as to all of the appealed claims.

**Please link this application to Customer No. 38441 so that its status may be checked via the PAIR System.**

Respectfully submitted,

3 OCT 2005
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**CUSTOMER NO. 38441**

ATTORNEYS AND AGENTS FOR APPELLANTS

## Claims Appendix

## (37 C.F.R. § 41.37(c)(1)(viii))

Claim 1 (Canceled).

Claim 2 (Previously Presented) The method of Claim 7, wherein each project definition comprises a plurality of ordered tasks for developing the product associated with the project definition, each task comprising a time requirement, a resource requirement, and an ordering constraint with respect to the other tasks in the project definition.

Claim 3 (Previously Presented) The method of Claim 7, wherein a candidate product includes at least two project definitions, the method comprising selecting one of the at least two project definitions in the development schedule for generating the development schedule.

Claim 4 (Canceled).

Claim 5 (Previously Presented) The system of Claim 15, wherein the project definitions comprise a plurality of ordered tasks, with each task containing a time requirements, a resource requirement, and an ordering constraint with respect to the other tasks in the project definition.

Claim 6 (Previously Presented) The system of Claim 15, wherein:

a candidate product comprises at least two project definitions; and

the planning engine selects one of the at least two project definitions for inclusion in the development schedule.

Claim 7 (Previously Presented) A computer-implemented method for selecting a portfolio of products to be developed, the method performed using a computer system comprising one or more processing units and one or more memory units, the method comprising:

using the computer system, selecting a set of candidate products to be developed;

using the computer system, calculating a set of financial projections for each candidate product, the set of financial projections for a candidate product providing a future profit determination for each of a set of possible product introduction dates for the candidate product;

using the computer system, for each candidate product, determining based on the set of financial projections an impact that the time of introduction has on profits associated with the candidate product;

using the computer system, providing at least one project definition for each candidate product, such project definitions each including a development schedule and resource requirements;

using the computer system, providing a set of available resources; and

using the computer system, generating a development schedule for the set of candidate products to maximize profit based at least on the determined impact that the time of introduction has on profits associated with each of the candidate products and using the financial projections for the candidate products as a weighted factor in generating the development schedule such that products more affected by time are scheduled for faster production than products less affected by time, the development schedule providing for product development in accordance with project definitions for each of the candidate products and resource constraints.

Claim 8 (Previously Presented) The method of Claim 7, further comprising:

determining, based at least on the sets of financial projections for the candidate products, which products would generate the greatest profits; and

prioritizing the candidate products that would generate the greatest profits in generating the development schedule.

Claim 9 (Previously Presented) The method of Claim 2, wherein the ordering constraint defines a sequence for the plurality of ordered tasks, the sequence providing one or more of the following:

certain tasks must be completed before other tasks; and

certain tasks may be completed in parallel with certain other tasks.

Claim 10 (Previously Presented) The method of Claim 2, wherein generating the development schedule comprises enforcing the ordering constraint when scheduling development of products.

Claim 11 (Previously Presented) The method of Claim 2, wherein at least one project definition comprises one or more phases for development of the associated candidate product, each phase comprising one or more of the plurality of ordered tasks.

Claim 12 (Previously Presented) The method of Claim 11, further comprising assigning a probability of completion to each of the one or more phases, the probability of completion for use in allocating resources when generating the development schedule in accordance with the project definitions and the resource constraints.

Claim 13 (Previously Presented) The method of Claim 12, further comprising, for each phase of product development, multiplying resources required for the phase by a product of the probability of completion for the phase and the probabilities of completion for all preceding phases.

Claim 14 (Previously Presented) The method of Claim 7, further comprising generating as an output a projected profit number in addition to the development schedule.

Claim 15 (Previously Presented) A system for selecting a portfolio of products to be developed, comprising:

a set of candidate products;

a set of financial projections associated with each candidate product, the set of financial projections for a candidate product providing a plurality of profit projections for each of a set of possible introduction dates for the candidate product;

a set of project definitions, at least one project definition associated with each candidate product, each of such project definitions comprising a development schedule and resource requirements;

a set of available resources; and

a planning engine operable to:

read in the set of candidate products, the sets of financial projections for the candidate products, the sets of project definitions for the candidate products, and the set of available resources

select a set of candidate products that meets all resource availability constraints and maximizes profits; and

generate a development schedule for the selected set of candidate products, the financial projections for the candidate products being used by the planning engine as a weighted factor in generating the development schedule such that products more affected by time are scheduled for faster production than products less affected by time.

Claim 16 (Previously Presented) The method system of Claim 15, wherein the planning engine is operable to:

determine, based at least on the sets of financial projections for the candidate products, which products would generate the greatest profits; and

prioritize the candidate products that would generate the greatest profits in generating the development schedule.

Claim 17 (Previously Presented) The system of Claim 5, wherein the ordering constraint defines a sequence for the plurality of ordered tasks, the sequence providing one or more of the following:

certain tasks must be completed before other tasks; and

certain tasks may be completed in parallel with certain other tasks.

Claim 18 (Previously Presented) The system of Claim 5, wherein the planning engine is operable to, in generating the development schedule, enforce the ordering constraint when scheduling development of products.

Claim 19 (Previously Presented) The system of Claim 5, wherein at least one project definition comprises one or more phases for development of the associated candidate product, each phase comprising one or more of the plurality of ordered tasks.

Claim 20 (Previously Presented) The system of Claim 19, further comprising a probability of completion assigned to each of the one or more phases, the probability of completion for use by the planning engine in allocating resources when selecting the set of candidate products that meets all resource constraints and maximizes profits.

Claim 21 (Previously Presented) The system of Claim 20, wherein the planning engine is operable to, for each phase of product development, multiply resources required for the phase by a product of the probability of completion for the phase and the probabilities of completion for all preceding phases.

Claim 22 (Previously Presented) The system of Claim 15, wherein the planning engine is further operable to generate as an output a projected profit number in addition to the development schedule.

Claim 23 (Canceled).

Claim 24 (Previously Presented) The software of Claim 26, wherein each project definition comprises a plurality of ordered tasks for developing the product associated with the project definition, each task comprising a time requirement, a resource requirement, and an ordering constraint with respect to the other tasks in the project definition..

Claim 25 (Previously Presented) The method software of Claim 26, wherein a candidate product includes at least two project definitions, the software operable to select one of the at least two project definitions in the development schedule for generating the development schedule.

Claim 26 (Previously Presented) Software for selecting a portfolio of products to be developed, the software being embodied in computer-readable media and when executed by a computer system operable to:

select a set of candidate products to be developed;

calculate a set of financial projections for each candidate product, the set of financial projections for a candidate product providing a future profit determination for each of a set of possible product introduction dates for the candidate product;

for each candidate product, determine based on the set of financial projections an impact that the time of introduction has on profits associated with the candidate product;

provide at least one project definition for each candidate product, such project definitions each including a development schedule and resource requirements;

provide a set of available resources; and

generate a development schedule for the set of candidate products to maximize profit based at least on the determined impact that the time of introduction has on profits associated with each of the candidate products and using the financial projections for the candidate products as a weighted factor in generating the development schedule such that products more affected by time are scheduled for faster production than products less affected by time, the development schedule providing for product development in accordance with project definitions for each of the candidate products and resource constraints.

Claim 27 (Previously Presented) The software of Claim 26, further operable to:

determine, based at least on the sets of financial projections for the candidate products, which products would generate the greatest profits; and

prioritize the candidate products that would generate the greatest profits in generating the development schedule.

Claim 28 (Previously Presented) The software of Claim 24, wherein the ordering constraint defines a sequence for the plurality of ordered tasks, the sequence providing one or more of the following:

certain tasks must be completed before other tasks; and

certain tasks may be completed in parallel with certain other tasks.

Claim 29 (Previously Presented) The software of Claim 24, further operable to, in generating the development schedule, enforce the ordering constraint when scheduling development of products.

Claim 30 (Previously Presented) The software of Claim 24, wherein at least one project definition comprises one or more phases for development of the associated candidate product, each phase comprising one or more of the plurality of ordered tasks.

Claim 31 (Previously Presented) The software of Claim 30, further operable to assign a probability of completion to each of the one or more phases, the probability of completion for use in allocating resources when generating the development schedule in accordance with the project definitions and the resource constraints.

Claim 32 (Previously Presented) The software of Claim 31, further operable to, for each phase of product development, multiply resources required for the phase by a product of the probability of completion for the phase and the probabilities of completion for all preceding phases.

Claim 33 (Previously Presented) The software of Claim 26, further operable to generate as an output a projected profit number in addition to the development schedule.

Claim 34 (Previously Presented) A system for selecting a portfolio of products to be developed, comprising:

means for selecting a set of candidate products to be developed;

means for calculating a set of financial projections for each candidate product, the set of financial projections for a candidate product providing a future profit determination for each of a set of possible product introduction dates for the candidate product;

means for each candidate product, determining based on the set of financial projections an impact that the time of introduction has on profits associated with the candidate product;

means for providing at least one project definition for each candidate product, such project definitions each including a development schedule and resource requirements;

means for providing a set of available resources; and

means for generating a development schedule from the set of candidate products to maximize profit based at least on the determined impact that the time of introduction has on profits associated with each of the candidate products and using the financial projections for the candidate products as a weighted factor in generating the development schedule such that products more affected by time are scheduled for faster production than products less affected by time, the development schedule providing for product development in accordance with project definitions for each of the candidate products and resource constraints.

Claim 35 (Previously Presented) The method of Claim 7, wherein:

the set of candidate products define a first product mix;

the generated development schedule for the first product mix comprises a first development schedule; and

the method further comprises:

generating as an output a first projected profit number for the first product mix in addition to generating the first development schedule;

changing, after generating the first development schedule for the first product mix and generating the first projected profit number for the first product mix, the set of candidate products in the first product mix to define a second product mix;

generating a second development schedule for the second product mix; and

generating as an output a second projected profit number for the second product mix in addition to generating the second development schedule, enabling a user to compare the first development schedule and the second development schedule and to compare the first projected profit number and the second projected profit number to determine whether the first product mix or the second product mix is suitable.

Claim 36 (Previously Presented) The method of Claim 35, wherein changing the set of candidate products in the first product mix to define a second product mix comprises one or more of:

removing one or more of the products in the set of candidate products of the first product mix;

adding one or more new products to the first product mix; and

altering the project definition of one or more of the products in the set of candidate products of the first product mix.

Claim 37 (Previously Presented) The system of Claim 15, wherein;

the set of candidate products define a first product mix;

the generated development schedule for the first product mix comprises a first development schedule; and

the planning engine is further operable to:

generate as an output a first projected profit number for the first product mix in addition to generating the first development schedule;

change, after generating the first development schedule for the first product mix and generating the first projected profit number for the first product mix, the set of candidate products in the first product mix to define a second product mix;

generate a second development schedule for the second product mix; and

generate as an output a second projected profit number for the second product mix in addition to generating the second development schedule, enabling a user to compare the first development schedule and the second development schedule and to compare the first projected profit number and the second projected profit number to determine whether the first product mix or the second product mix is suitable.

Claim 38 (Previously Presented) The system of Claim 37, wherein changing the set of candidate products in the first product mix to define a second product mix comprises one or more of:

removing one or more of the products in the set of candidate products of the first product mix;

adding one or more new products to the first product mix; and

altering the project definition of one or more of the products in the set of candidate products of the first product mix.

Claim 39 (Previously Presented) The software of Claim 26, wherein:

the set of candidate products define a first product mix;

the generated development schedule for the first product mix comprises a first development schedule; and

the software is further operable to:

generate as an output a first projected profit number for the first product mix in addition to generating the first development schedule;

change, after generating the first development schedule for the first product mix and generating the first projected profit number for the first product mix, the set of candidate products in the first product mix to define a second product mix;

generate a second development schedule for the second product mix; and

generate as an output a second projected profit number for the second product mix in addition to generating the second development schedule, enabling a user to compare the first development schedule and the second development schedule and to compare the first projected profit number and the second projected profit number to determine whether the first product mix or the second product mix is suitable.

Claim 40 (Previously Presented) The software of Claim 39, wherein changing the set of candidate products in the first product mix to define a second product mix comprises one or more of:

removing one or more of the products in the set of candidate products of the first product mix;

adding one or more new products to the first product mix; and

altering the project definition of one or more of the products in the set of candidate products of the first product mix.

## Evidence Appendix

## (37 C.F.R. § 41.37(c)(1)(ix))

None.

## Related Proceedings Appendix

## (37 C.F.R. § 41.37(c)(1)(x))

None.